

Table 1. Demographic characteristics of the study population	
Age (years)	65.8 ± 1.2
Gender (male/female)	10/10
Education (years)	12.5 ± 0.5
Occupation (white/blue)	10/10
Marital status (married/divorced/widowed)	10/0/0
Smoking status (smoker/nonsmoker)	10/10
Alcohol consumption (yes/no)	10/10
Comorbidities (hypertension/diabetes/cholesterol)	10/10/10
Medication (antihypertensive/antidiabetic/anticholesterol)	10/10/10
Family history (hypertension/diabetes/cholesterol)	10/10/10
Physical activity (yes/no)	10/10
Stress level (high/low)	10/10
Sleep quality (good/poor)	10/10
Depression score (yes/no)	10/10
Overall health status (good/poor)	10/10

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8. The method of claim 7, wherein the variant of Eo-protein comprises 120 amino acids of SEQ ID NO:1.

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Sub B⁵

9. The method of claim 7, wherein the variant of E₀ protein comprises E₀₁ protein having amino acids 1-120 of SEQ ID NO:1.

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Sub
C⁵

10. The method of claim 1, wherein the cells are liver cells.

11. The method of claim 10, wherein the liver cells are human liver cells.

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12. A method of identifying a compound which can inhibit the attachment of hepatitis C virus onto cells by inhibiting the binding of hepatitis C virus envelope E2 protein to a cellular protein associated with hepatitis C virus attachment onto cells and their entry into cells, comprising:

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a) incubating said compound, the hepatitis C virus envelope E2 protein or its variant and said cellular protein capable of specifically binding to said hepatitis C virus E2 protein under a suitable reaction conditions,

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b) determining the interactions between the hepatitis C virus envelope E2 protein or its variant and said cellular protein in the presence of said compound, and

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c) comparing the interactions in step (b) with the interaction between the hepatitis C virus envelope E2 protein or its variant and said cellular protein in the absence of said compound so as to identify a compound which can inhibit the attachment of hepatitis C virus onto cells.

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13. The method of claim 12, wherein the cell is in a subject.
14. The method of claim 13, wherein the subject is a mammal.
15. The method of claim 13, wherein the subject is a human.
16. The method of claim 12, wherein the cellular protein comprises Eo protein or its variant.
17. The method of claim 16, wherein the Eo protein comprises the amino acid sequence of Figure 2, SEQ ID NO:1.
18. The method of claim 16, wherein the variant of Eo protein comprises 120 amino acids of SEQ ID NO:1.
19. The method of claim 16, wherein the variant of Eo protein comprises Eo1 having amino acids 1-120 of SEQ ID NO:1.
20. The method of claim 12, wherein the hepatitis C virus envelope E2 protein comprises amino acid sequence of Figure 7, SEQ ID NO:2.
21. The method of claim 12, wherein the variant of hepatitis C virus envelope E2 protein comprises 254 amino acids of SEQ ID NO:2.
22. The method of claim 12, wherein the variant of hepatitis C virus envelope E2 protein comprises amino acid sequence of Figure 8, SEQ ID NO:2.

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23. The method of claim 12, wherein the inhibition of the attachment of hepatitis C virus onto cells is in vitro.

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24. The method of claim 12, wherein the compound is not previously known.

25. The compound identified by the method of claim 24.

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26. A composition comprising an effective amount of the compound identified by the method of claim 12, wherein the compound is capable of inhibiting the interactions between hepatitis C virus envelope E2 protein and a cellular protein associated with hepatitis C virus attachment onto cells and their entry into cells.

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27. A pharmaceutical composition comprising an effective amount of the compound identified by the method of claim 12, wherein the compound is capable of inhibiting the attachment of hepatitis C virus onto cells.

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28. The method of claim 12, wherein the cells are liver cells.

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29. The method of claim 28, wherein the liver cells are human liver cells.

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30. A method for determining whether a compound can be used for treating or preventing hepatitis C virus infection in a subject, wherein said compound inhibits the binding of hepatitis C virus envelope E2 protein to a cellular protein associated with

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hepatitis C virus attachment onto cells and their entry into cells so as to block the attachment of hepatitis C virus onto cells, comprising:

- 5 a) incubating said compound, the hepatitis C virus envelope E2 protein or its variant and said cellular protein capable of specifically binding to said hepatitis C virus E2 protein under a suitable reaction conditions,
- 10 b) determining the interactions between the hepatitis C virus envelope E2 protein or its variant and said cellular protein in the presence of said compound, and
- 15 c) comparing the interactions in step (b) with the interaction between the hepatitis C virus envelope E2 protein or its variant and said cellular protein in the absence of said compound so as to identify a compound which can inhibit
- 20 the attachment of hepatitis C virus onto cells.

31. The method of claim 30, wherein the subject is a human.

25 32. The method of claim 30, wherein the compound can be administered orally or by injection.

a 33. The method of claim 30, wherein the cellular protein comprises Eo protein or its variant.

30 34. The method of claim 33, wherein the Eo protein comprises the amino acid sequence of Figure 2, SEQ ID NO:1.

35 35. The method of claim 33, wherein the variant of Eo

protein comprises 120 amino acids of SEQ ID NO:1.

36. The method of claim 33, wherein the variant of Eo
protein comprises Eo1 protein having amino acids 1-
120 of SEQ ID NO:1.

37. The method of claim 30, wherein the hepatitis C virus
envelope E2 protein comprises amino acid sequence of
Figure 7, SEQ ID NO:2.

38. The method of claim 30, wherein the variant of the
hepatitis C virus envelope E2 protein comprises 254
amino acids of Figure 7, SEQ ID NO:2.

39. The method of claim 30, wherein the variant of the
hepatitis C virus envelope E2 protein comprises amino
acid sequence of Figure 8, SEQ ID NO:3.

40. The method of claim 30, wherein the compound is not
previously known.

41. The compound identified by the method of claim 40.

42. The method of claim 30, wherein the cells are liver
cells.

43. The method of claim 2, wherein the liver cells are
human liver cells.

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add c6

ADD

D2

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add E1

add F1

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